Abstract

An endoluminal stent composed of a plurality of first structural elements arrayed to form the circumference of the stent and extending along the longitudinal axis of the stent, and a plurality of second structural elements that interconnect adjacent pairs of first structural elements. The plurality of first structural elements have either a linear shape or a generally sinusoidal configuration with either a regular or irregular periodicity or regions of regular and regions of irregular periodicity between the peaks and troughs of the pattern, with the peaks and troughs projecting from the first structural elements in the circumferential axis. The plurality of second structural elements are generally linear or sinusoidal-shaped members which interconnect an apex of a peak of one of the plurality of first structural elements with an apex of a valley of a second and adjacent one of the plurality of first structural elements. Each of the plurality of second structural elements are generally oriented parallel to the circumferential axis of the stent.